

Express Yourself

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- Articles on SQL Server Standard, Windows IT Pro
- Webcasts on SQL Server
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Part of the “Express” series of products – scaled down version of SQL Server 2005

Successor of MSDE

Other Express Versions that also use SSE

- VB Express

- C# Express

- C++ Express

- J# Express

- Visual Web Developer (ASP)

Express usually indicates “Easy” – Outlook Express

Some Express Editions have different features

SQL Server 2005 Express Edition

How does the Express Edition of SQL Server compare to other SQL Server Express Edition products? SQL Server Express Edition is perfect for use as an embedded database for a desktop application that requires a fully functional SQL Server Database Engine. SQL Server Express offers the smallest package size for faster downloads or to conserve space on deployment media.

SQL Server 2005 Express Edition with Advanced Services

How does the Express Edition with Advanced Services for SQL Server compare to the other SQL Server Express Edition products? SQL Server 2005 Express Edition with Advanced Services is perfect for use as a backend to a small, multiuser application that requires more advanced features such as Web reporting or Full-text Search.

SQL Server 2005 Express Edition Toolkit

How does the Express Edition Toolkit for SQL Server compare to other SQL Server Express Edition products? Install this package if you need the management tools and client components, but do not need the Database Engine.

- Features of SQL Server Express 2005
- How does it compare with other SQL Server Versions
- Comparison with similar technologies
- What happens when I need to scale up?
- Demos

- . Xcopy deployment
- . CLR Integration – able to write SPs in .NET languages
- . Can be used as a Witness in Mirroring
- . Same file structure as SQL Server 2005
- . New GUI tool – Express Manager
- . DB support up to 4 GB
- . **NEW!!!** – Limited Reporting Services Capabilities
- . **FREE!!!!**

Hobbyist Developer – Fast, Easy DB for Novice Developers

ISVs – Simplifying Embedded Deployment and Management

Technology Professionals – Reduce cost of distributed and disconnected apps

Why make SSE free?

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- › SSE replaces MSDE going forward

<u>Feature</u>	<u>SSE</u>	<u>MSDE 2000</u>
“Workload Governor”	No	10 connections
Database Size Limit	4GB maximum	2GB Maximum
Data Access Technology	SQL Native Access Client (SNAC)	MDAC (ODBC, OLE-DB, ADO, ADO.NET)
GUI Tools	Express Manager	No Native / 3rd party only
CPU and RAM	1st CPU, 1st GB of RAM	2 CPUs, 2 GB of RAM
SQL Agent	No	Yes
Replication	Trans, Merge Subscriber Only	Merge (FULL)
OS Support	Win2k, Win2k3, XinXP	98, ME, Win2k, Win2k3 XP

Source: Kent Tegels

Comparison of SSE with MSDE and Access 2003

Feature	SSE	MSDE	Access/Jet
Database Size	4 GB	2 GB	2 GB
RAM (max)	1 GB	2 GB	n/a
Notable Features	Repl Subscriber, Installer, Updates, CLR, Reporting Svc, Service Broker	Run-Time DTS, Publishing for Merge, Trans (Limited)	GUI Forms, Reports, etc.
Tools	Express Manager	No Native Tools	Native Access Tools

What about Compact Edition?

Compact

Build standalone and occasionally connected applications for mobile devices, desktops, and web clients on all Microsoft Windows platforms.

Express

Ideal for learning and building desktop and small server applications and for re-distribution by ISVs.

	SQL Server 2008 Compact Edition	SQL Server 2008 Express Edition
Specs	4GB DB Size	4GB DB Size, 1 CPU, 1GB RAM
Manageability	X	O
Security	X	O
Programmability	X	O
Integration & Interoperability	X	X
Reporting	O	O
Deployment Options	O	X

X = Full

O = Partial/Limited

Full Feature Comparison available at:

<http://download.microsoft.com/download/e/8/8/e8859616-e95d-41fe-9f81-ff88388d772b/SQLServer%202008CompareComapctExpress.pdf>

SQL Server Version Comparison

Feature	SSE Edition	Workgroup Edition	Standard Edition	Enterprise Edition
Maximum used RAM and #CPUS	1 GB 1 CPU	3 GB 2 CPUs	OS limit 4 CPUs	OS limit OS limit
Database File Size	4 GB (no limit on logs)	No limit	No limit	No limit
Additional Features Included	SSB & Replication Client	SSMS, Agent, Log Shipping, Report Builder	OLAP, Mirroring (Limited)	Partitioning, Mirroring (Full), the works
Retail prices	\$0	\$3,899 (\$739 for 5 CALs)	\$5,999 Per CPU	\$24,999 Per CPU

Source: Kent Tegels

Ability to Move/Copy local dbs with application

- Copy across machines

- Copy on same machine / different location

- Similar to Access Database Deployment

No extra configuration needed

Assumes Express already installed

Relies on two key features

- Auto-close (enhanced in 2005)

- AttachDBFileName with [DataDirectory]

AttachDBFileName=c:\\MyFolder\\MyDB.mdf

The convenience of xcopy deployment

Copy of a Directory or Folder to deploy a database

E-mail an app or database deployment

The special properties of a database that makes this possible

Auto-close (enhanced in 2005)

AttachDBFileName with [DataDirectory]

Visual Studio

Surface Area Configuration

Computer manager

SQLCMD – SQL Command Line Tool

SQL Server Express Manager – light weight query tool

SQL Server Express Manager

SQLCMD Command-Line Tool

```
sqlcmd -E -Swinxp2\SQLEXPRESS
```

CLR Integration

Use .NET Languages inside SQL Server

Developers may find it more “comfortable”

T-SQL is not going away – Use T-SQL when you need to access the data

Use .NET when there is more complex or computationally intensive operations

Use of User-Defined Data Types

XML Data Type – Native!

XQuery support

How to use SSE in this space

Faster access to data

More apparent “uptime”

Replication Subscriber – Merge, Transactional

Subscriber only

Snapshot

Transactional

Merge

Synchronize – Windows Tool

Guaranteed One-time Asynchronous Delivery of
a Message

Not allowed to send/receive messages from other
SQL Server Express Installs.

Allowed to send/receive messages from other
SQL Server SKUs

Limitations

Reporting based on data within SSE only

Limited Publishing Options

No Report Builder (End user tool)

File Locations – Separate Data and Log Files

Multiple Filegroups

Multiple files per filegroup

Placement of TempDB

What version of SQL Server 2005 do I step up to
from SSE?

RAM

CPU

Features

FAQ's

Why is Microsoft building SQL Server Express?

Based on positive feedback from customers and partners surrounding the Microsoft SQL Server Desktop Engine (MSDE), Microsoft made the decision to provide similar capabilities for SQL Server 2005. Microsoft is committed to enabling developers to build robust and reliable data-driven applications.

How much does SQL Server Express cost?

SQL Server Express is free to use and redistribute. End-users must agree to the Go Live licensing to distribute this release of SQL Server Express Edition. See <http://msdn.microsoft.com/vs2005/golive>.

How is SQL Server Express different from other editions of SQL Server 2005?

SQL Server Express is designed to meet the needs of simple applications. Therefore, it is limited to using a single CPU and up to 1GB RAM, with a 4GB maximum database size. SQL Server Express does not include any of the advanced components of SQL Server including Analysis Services, Data Transformation Services, and Notification Services.

More FAQ's

How is SQL Server Express different from MSDE?

SQL Server Express is an evolution of MSDE that continues to make the features and functionality of SQL Server technology widely available. SQL Server Express includes enhancements to setup and manageability to make it easier to use than MSDE. SQL Server Express also utilizes simpler and more scalable performance limits than MSDE, which managed throughput with a workload governor.

What happens to MSDE?

SQL Server 2005 Express Edition will replace MSDE.

If SQL Server Express is the next version of MSDE, why are you changing the name?

The name MSDE was confusing to customers and partners because many did not realize that it was associated with SQL Server. We believe that by changing the name from MSDE to SQL Server Express there will be less confusion among customers and partners.

Can I upgrade an MSDE database to SQL Server Express?

Yes, existing MSDE databases can be upgraded to SQL Server Express.

Is SQL Server Enterprise Manager included in SQL Server Express?

No, SQL Server Enterprise Manager is not included. A new, free management tool, SQL Server Express Manager, will be available for SQL Server Express.

Why Upgrade from MSDE?

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Upgrading from Microsoft SQL Server 2000 Desktop Engine (MSDE) to SQL Server 2005 Express Edition lets your organization:

- Deliver high performing applications because the MSDE workload governor is not in SQL Express.
- Handle more demanding workloads with a larger maximum database size of 4 GB.
- Improve time to market by increasing developer productivity through tight integration with Visual Studio.
- Deliver more value in your applications through embedded reporting with SQL Server 2005 Reporting Services built-in to SQL Express.
- Synchronize data seamlessly with SQL Server Workgroup Edition or higher using SQL Service Broker or Replication client.
- Ease management of SQL Server Express with SQL Server 2005 Management Studio Express, a free, integrated management tool, rather than having to build custom tools for database management and administration.
- Redistribute SQL Server 2005 Express Edition free with your applications.
- Take advantage of security improvements such as secure by default settings and native database encryption.

SSE is a good starter db

XM is a light-weight tool to manage SSE

Integration of CLR

Building Block for Apps that want to use a local data store

As the app grows, a few changes can help increase performance

Can be used in Database Mirroring as a witness

Thank you!

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Resources

SQL Server Express Profiler – 3rd Party Tool
<http://sqlprofiler.googlepages.com/>

SQL Server 2005 Express Upgrade White Paper
<http://www.microsoft.com/sql/editions/express/upgrade.mspx>

Learn SQL Server Express Videos
<http://www.microsoft.com/sql/editions/express/learnvideos.mspx>